

GA Assignment

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Batch: 047-CSS 24-NOA-JSBI-ONLINE

1. Short-sightedness:

Definition: Short-sightedness, also known as myopia, is an eye disease in which light focuses in front of, instead of on, the retina (Diagram A).

Diagram A:

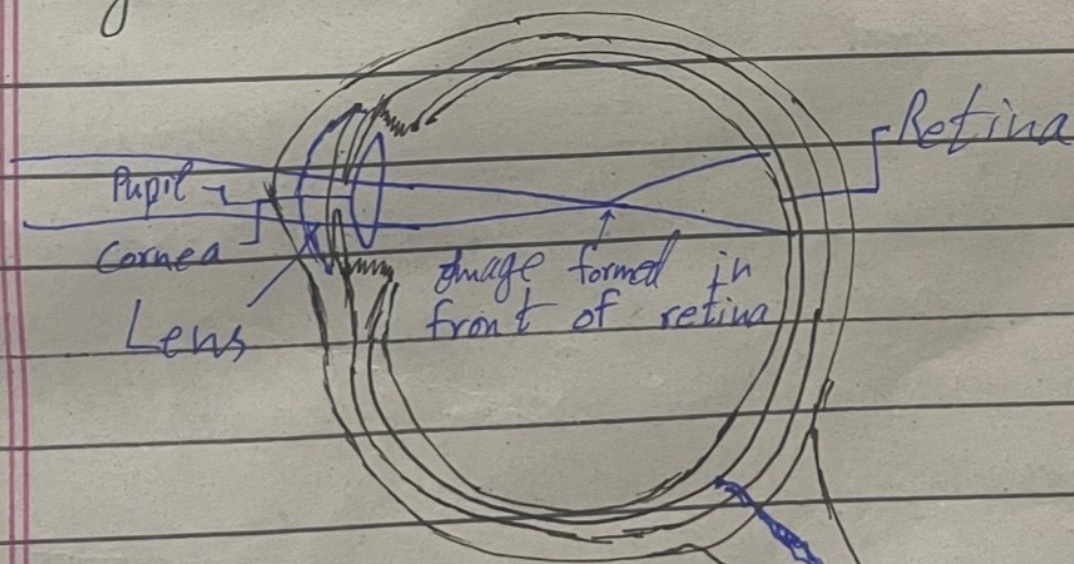


Diagram A: Myopia

near-sighted person/individual can see clearly out to a certain distance, but objects placed beyond this distance appear blurred.

Causes: The underlying cause is believed to be a combination of genetic and environmental factors.

(i) Genetics: A risk for myopia may be inherited from one's parents.

(ii) Environmental Factors: Environmental factors which increase the risk of short-sightedness include insufficient

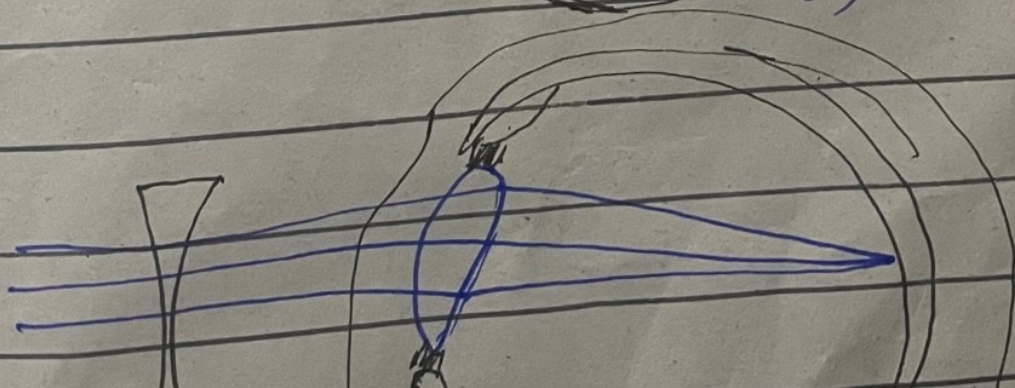
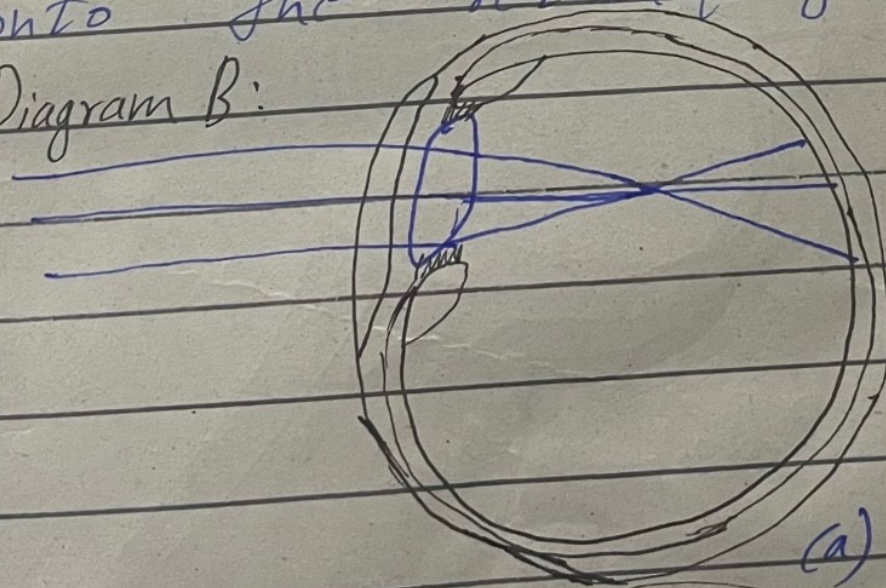
activity, near work, and increased year of education.

Treatment: Some of the methods which are used for treating short-sightedness, are given below:

(i) Glasses and Contacts:

Corrective lenses bend the light entering the eye in a way that places a focused image accurately onto the retina (Diagram B).

Diagram B:



2. Far-sightedness:

Definition: Far-sightedness, also known as hypermetropia, is a condition of the eye where light focuses behind, instead of on, the retina (Diagram A)

Diagram A:

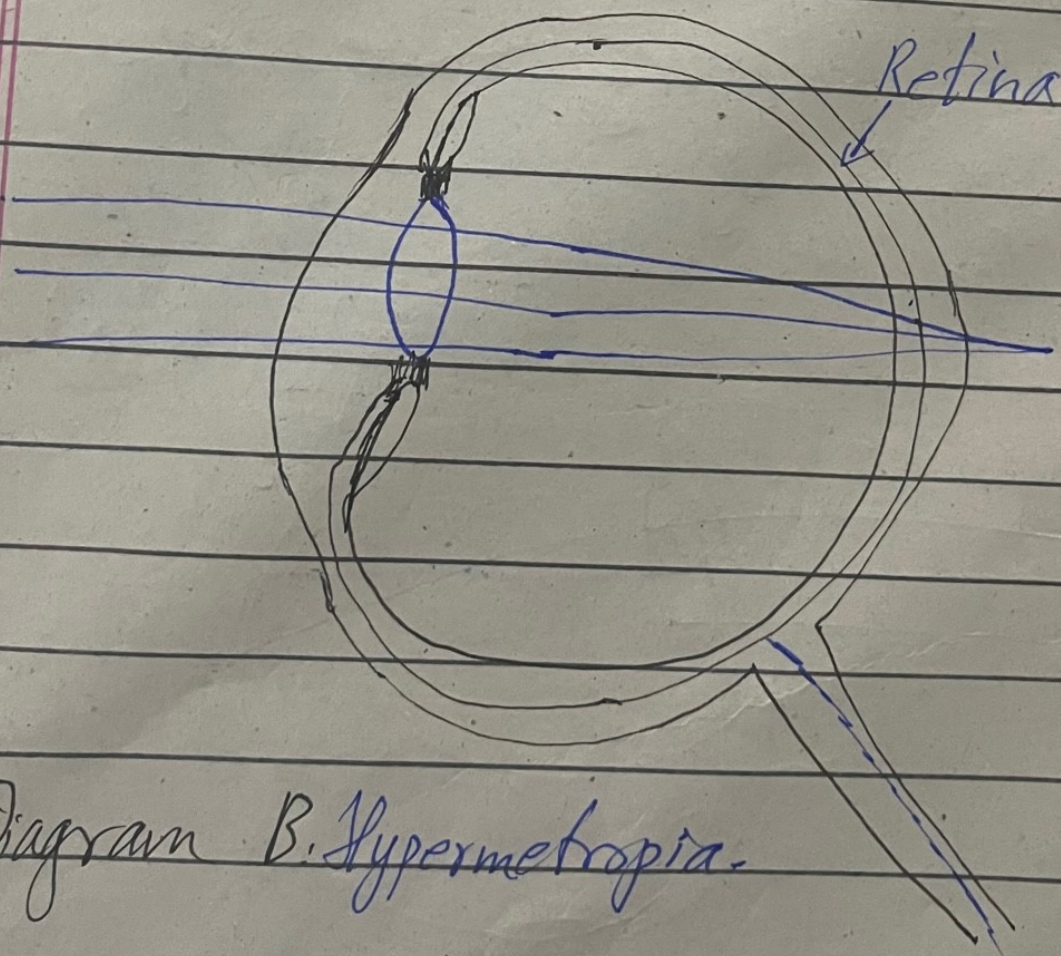


Diagram B. Hypermetropia.

Signs and Symptoms: The signs and symptoms of far-sightedness include blurry vision, frontal or fronto-temporal headaches, eye strain, tiredness of eyes, etc.

Causes: The causes of hypermetropia can be classified as:

- * Axial,
- * Curvatural,
- * Index,
- * Positional,
- * Consecutive,
- * Functional,
- * Absence of Lens.

Treatment: Some of the methods which are used in treating hypermetropia are given below.

(i) Corrective Lenses: The simplest form of treatment for far-sightedness is the use of corrective lenses, i.e. eyeglasses or contact lenses. (Diagram B).

Diagram B:

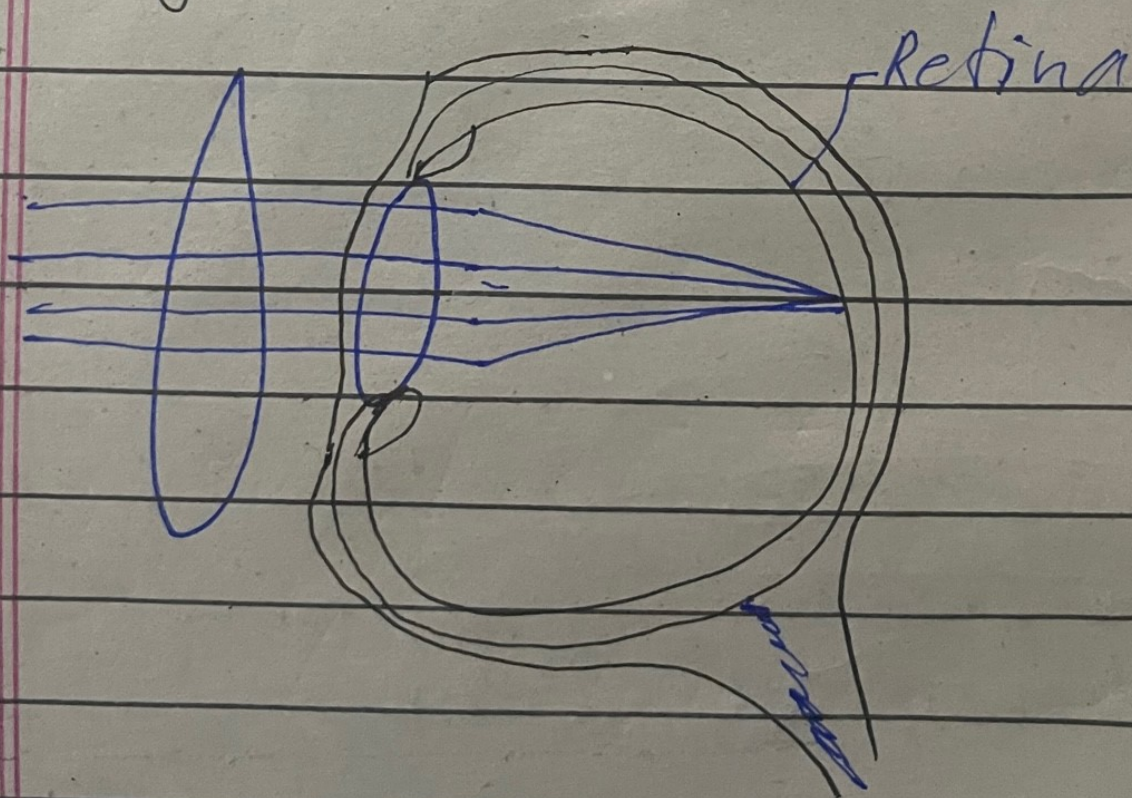


Diagram B: Treatment of hypermetropia.

3. Night Blindness:

Definition: Night blindness, also known as nyctalopia, is a condition making it difficult or impossible to see in relatively low light.

Causes: Night blindness has many causes, including:

- * Myopia,
- * Glaucoma medications,
- * Cataracts,
- * Retinitis pigmentosa,
- * Vitamin A deficiency,
- * Diabetes.

Treatment: Treatment for night blindness depends on the cause.

(i) Simple Treatment: Treatment may be as simple as getting a new eyeglass prescription.

(ii) Complex Treatment: Treatment may require surgery if the night blindness is caused by cataracts.

4. Color Blindness:

Definition: Color blindness is the decreased ability to see color or differences in color.

Causes: The causes of color blindness are given below:

(i) Genetics: Color blindness is typically an inherited genetic disorder.

(ii) Non-Genetic Causes: Physical trauma can cause color blindness, either neurologically-brain trauma (which produces the

occipital lobe) - or retinally, either acute (e.g. from laser exposure) or chronic (e.g. from UV light exposure).

Treatment: The treatment of color blindness is given below.

(i) Genetic Color Blindness:

There is no known cure for genetic color blindness.

(ii) Non-Genetic Color

Blindness: If color blindness is non-genetic, the ophthalmologist will treat the condition by prescribing an appropriate medicine.